UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND - REGION I
1 CONGRESS STREET, SUITE 1100 (HBT)
BOSTON, MASSACHUSETTS 02114-2023

February 10, 2005

Lonnie Monaco (monacolj@efane.northdiv.navy.mil)
Engineering Field Activity Northeast, Naval Facilities Engineering Command
Code 1821/LM, 10 Industrial Highway, Mailstop 82
Lester, PA 19113-2090

Re: ***"Direct-Push Groundwater and Ash Landfill/Dump Area Delineation Investigation Summary Report for Site 9"*** **, Draft Final Report, at the Brunswick Naval Air Station, Brunswick, Maine**

Dear Mr. Monaco:

Pursuant to § 6 of the Naval Air Station Brunswick, Maine Federal Facility Agreement dated October 19, 1990, as amended (FFA), the Environmental Protection Agency has reviewed the subject document and comments are below:

G neral Comments:

1. The responses to EPA comments are satisfactory. The proposed changes to the text have been incorporated.

2. EPA agrees with the State of Maine's comments dated February 8, 2005 on the subject document and will not re-iterate them here.

3. Through-out the document the remedy for site 9 has been described as "monitored natural attenuation". This type of remedy has a specific protocol which is not being followed here nor was it the selected remedy in the ROD dated, September 1999 was natural attenuation with long term monitoring and institutional controls. Please do a global search to change the description of the remedy.

Specific Comments:

4. p. 3, sec. 2.1.1: *typo:* Please change "Fitchburgh" to "Fitchburg."

5. p. 5, sec. 2.1.3: Electrical conductivity (EC) logs were collected at S9-B10 and -B11 to characterize the lithology, the principle being that higher conductivity is associated with finer-grained soils. Groundwater samples were then collected in intervals chosen to be above the clay, and relatively coarse-grained (p. 6, sec. 2.1.4). Has the possible role of high-ionic-strength porewater from the underlying marine clay been considered in interpreting the EC logs? It seems possible that porewater from the clay may "bleed" upward into the overlying sand/silt, giving an elevated conductivity reading that could be misinterpreted as a signal for clayey material. It is noted that the log for S9-B6, the closest boring that was logged visually, the transition from sand/silt to the grey marine clay is fairly rapid. A trace of visual clay was described for the first time in the interval 49.9-50.4 ft bgs, only sand and silt were described in

the interval 50.4-50.8 ft bgs, and clay is described from 50.8 ft and deeper. At this location, then, the transition occurs over approximately 1 ft. The EC logs show a transition over a somewhat greater thickness; , for example, that for S9-B11 shows a roughly linear increase in conductivity from about 6 mS/m at ~44 ft bgs to about 25 mS/m at ~51 ft bgs, a distance of ~7 ft. This does not necessarily call into question the selection of sample intervals for groundwater. The deepest groundwater sample at S9-B11 was collected at 41.1-44.6 ft bgs, in the deepest lower-EC zone. If the EC transition zone is due, in part, to mixing with porewater from below due to an upward hydraulic gradient, this might suggest that the transition water is less likely to show site impacts in any event.

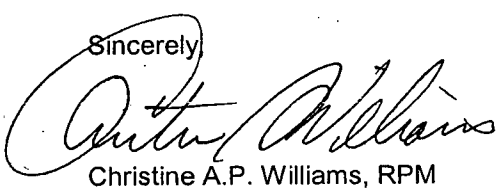
6. p. 14, sec. 3.3: The text notes that, "... soil samples were collected for characterization purposes only ... and, therefore, were not compared to MEDEP or EPA standards." While the motivation for avoiding comparisons to specific standards is understood, it may still be useful for perspective to provide some comparative values. For example, in section 3.3.2, a qualitative comparison is made between metals detections in the ash landfill samples and NAS background values (i.e., some metals are characterized as being "distinctly above background."). However, the background values are not cited in the data table (Table 3) so that the reader can make the comparison independently. Citation of other reference standards (e.g., the EPA Region 9 residential and industrial soil PRGs), even if not adopted for this site, may provide some perspective on the levels of contaminants encountered.

7. p. 15, sec. 3.3.2, fourth bullet: This bullet acknowledges metals above background, including Cu, Fe, Pb, Ag, and Zn. Should this list include antimony (Sb)? Samples S9-ASH-SB-5 (10-11 ft bgs) and (14-15 ft bgs) reported Sb at 175 and 2050 mg/kg, respectively. Is there a background value for Sb to which to compare these results? As noted in previous review comments, the Sb detected in the ash samples correlates with Pb, suggesting a common source (e.g., spent bullets).

8. p. 17, sec. 3.3.3: The text states that the dioxin analyses show exceedance of the EPA Region 9 residential and industrial PRGs (3.9 and 27 ng/g, respectively). It would be useful here to cite the actual TEQ results given in Table 5 (i.e., 19.9 and 21.3 ng/g treating NDs as 0; 29.5 and 40.2 ng/g treating NDs at half the detection limit), so that the reader can see directly how the site results compare to the standards cited.

If you have any questions with regard to this letter, please contact me at (617) 918-1384.

Sincerely,



Christine A.P. Williams, RPM
Federal Facilities Superfund Section

cc. Claudia Sait/ME DEP (claudia.b.sait@state.me.us)
Ed Benedikt/Brunswick Conservation Commission e-mail only(rbenedik@gwi.net)
Tom Fusco/BACSE e-mail only (tfusco@gwi.net)
Carolyn LePage/LePage Environmental (clepagegeo@aol.com)
Peter Golonka/Gannet-Fleming e-mail only (pgolonka@gfnet.com)
Darren Gainer/ECC e-mail only (dgainer@ecc.net)
Al Easterday/EA via e-mail only (aeasterd@eaest.com)
Lisa Joy /NASB (lisa.joy@navy.mil)